



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2020-0920; Project Identifier AD-2020-00662-R; Amendment 39-21462; AD 2021-05-19]**

**RIN 2120-AA64**

### **Airworthiness Directives; Sikorsky Aircraft and Sikorsky Aircraft Corporation Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for Sikorsky Aircraft Model S-61L, S-61N, S-61NM, and S-61R helicopters and Sikorsky Aircraft Corporation Model S-61A, S-61D, S-61E, and S-61V restricted category helicopters.

This AD was prompted by the manufacturer determining that there may be arm assemblies in service that have accumulated 15,000 or more hours time-in-service (TIS), which exceeds the service life limit for this component. This AD requires reviewing the mixer unit component log card or equivalent record and, depending on the number of hours TIS, calculating the remaining life of the arm assembly or removing the arm assembly from service. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact your local Sikorsky Field Representative or Sikorsky's Service Engineering Group at Sikorsky Aircraft Corporation, Mailstop K100, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-946-4337 (1-800-Winged-S); email [wcs\\_cust\\_service\\_eng.gr-sik@lmco.com](mailto:wcs_cust_service_eng.gr-sik@lmco.com).

Operators may also log on to the Sikorsky 360 website at <https://www.sikorsky360.com>. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0920.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0920; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Isabel L. Saltzman, Aerospace Engineer, Boston ACO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7649; email: [Isabel.l.saltzman@faa.gov](mailto:Isabel.l.saltzman@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to Sikorsky Aircraft Model S-61L, S-61N, S-61NM, and S-61R helicopters and Sikorsky Aircraft Corporation Model S-61A, S-61D, S-61E, and S-61V restricted category helicopters, with an arm assembly part number S6140-62614-009, installed. The NPRM published in the *Federal Register* on October 26, 2020 (85 FR 67692). The FAA learned from Sikorsky Aircraft Corporation that Sikorsky S-61 Helicopter Alert Service Bulletin (ASB) 61B General-1, Revision No. Z, dated November 13, 2018, which is applicable to Sikorsky Model S-61L, S-61N, S-61NM, and S-61R helicopters, failed to include the life limit of the redesigned arm assembly. As a result, Sikorsky Aircraft Corporation determined that there may be arm assemblies in service with 15,000 or more hours TIS, which exceeds the service life limit

for this component. In the NPRM, the FAA proposed to require reviewing the mixer unit component log card or equivalent record and, depending on the hours TIS of the arm assembly, calculating the remaining life of the arm assembly or removing the arm assembly from service. The proposed actions are intended to prevent an arm assembly from remaining in service beyond its life limit. This condition, if not addressed, could result in reduced or loss of tail rotor control and reduced control of the helicopter.

## **Discussion of Final Airworthiness Directive**

### **Comments**

The FAA received no comments on the NPRM or on the determination of the costs.

### **Conclusion**

The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for the minor editorial changes of updating the contact information to obtain service information identified in this final rule and updating the contact information for the FAA, this AD is adopted as proposed in the NPRM.

### **Related Service Information under 1 CFR Part 51**

The FAA reviewed Sikorsky S-61 Helicopter ASB 61B40-11, Basic Issue, dated March 2, 2020. This service information describes procedures for a one-time inspection of the mixer unit component log card to verify the arm assembly life limit and, if the life limit has been exceeded, to replace the arm assembly for Sikorsky Model S-61L, S-61N, and S-61NM helicopters.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

### **Other Related Service Information**

The FAA also reviewed Sikorsky S-61 Helicopter ASB 61B General-1, Revision AA, dated February 24, 2020. This service information summarizes and lists parts with mandatory retirement times and inspections for Sikorsky Model S-61L, S-61N, and S-

61NM helicopters.

### **Differences Between This AD and the Service Information**

The ASB is effective only for Sikorsky Aircraft Model S-61L, S-61N, and S-61NM helicopters. In addition to these helicopters, the applicability of this AD also includes Sikorsky Aircraft Model S-61R helicopters and Sikorsky Aircraft Corporation Model S-61A, S-61D, S-61E, and S-61V restricted category helicopters. The FAA is expanding the applicability to prevent the installation of arm assemblies that have exceeded their life limits on helicopters with a similar type design as those helicopters affected by the ASB.

### **Costs of Compliance**

The FAA estimates that this AD affects 13 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates that operators may incur the following costs in order to comply with this AD.

Reviewing the mixer unit component log or equivalent record takes about 1 work-hour for an estimated cost of \$85 per helicopter and \$1,105 for the U.S. fleet. Adding the arm assembly entry and determine the remaining life takes about 1 work-hour for an estimated cost of \$85 per helicopter and \$1,105 for the U.S. fleet. Replacing the arm assembly takes about 9 work-hours and parts cost about \$5,035, for an estimated cost of \$5,800 per arm assembly.

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does not control warranty coverage by the manufacturer; accordingly, the FAA has included all costs in this cost estimate.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:  
**2021-05-19 Sikorsky Aircraft and Sikorsky Aircraft Corporation:** Amendment 39-21462; Docket No. FAA-2020-0920; Project Identifier AD-2020-00662-R.

### **(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Sikorsky Aircraft Model S-61L, S-61N, S-61NM, and S-61R helicopters and Sikorsky Aircraft Corporation Model S-61A, S-61D, S-61E, and S-61V helicopters, certificated in any category including restricted, with an arm assembly part number S6140-62614-009, installed.

**(d) Subject**

Joint Aircraft System Component (JASC) Code 6720, Tail Rotor Control System.

**(e) Unsafe Condition**

This AD was prompted by the manufacturer determining that there may be arm assemblies in service with 15,000 or more hours time-in-service (TIS), which exceeds the life limit for this component. The FAA is issuing this AD to prevent reduced or loss of tail rotor control. This unsafe condition, if not addressed, could result in reduced control of the helicopter.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Action**

(1) Within 90 days after the effective date of this AD, review the mixer unit component log card or equivalent record to determine if the affected arm assembly is entered with the appropriate 15,000 hours TIS life limit.

(2) If the affected arm assembly is not included on the mixer unit component log card or equivalent record, within 90 days after the effective date of this AD, add the arm assembly entry to the mixer unit component log card or equivalent record and determine the remaining life of the arm assembly using the Accomplishment Instructions, Section 3.A.(3) of Sikorsky S-61 Helicopter Alert Service Bulletin (ASB) 61B40-11, Basic Issue, dated March 2, 2020 (the ASB).

(3) If, based on the review required by paragraphs (g)(1) and (2) of this AD, the arm assembly has accumulated 15,000 or more hours TIS, before further flight, remove the arm assembly from service. If the hours TIS for the affected arm assembly cannot be determined, before further flight, remove the affected arm assembly from service.

(4) For arm assemblies that have not accumulated 15,000 or more hours TIS, thereafter, continue to determine the remaining life of the arm assembly and remove the arm assembly from service before it accumulates 15,000 hours TIS.

**(h) Credit for Previous Actions**

You may take credit for adding the arm assembly entry to the mixer unit component log card or equivalent record and determining the remaining life of the arm assembly required by paragraphs (g)(1) and (2) of this AD if you performed these actions before the effective date of this AD using Sikorsky S-61 Helicopter ASB 61B General-1, Revision AA, dated February 24, 2020.

**(i) Special Flight Permit**

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are subject to the requirements of paragraph (g)(3) of this AD. Operators who are prohibited from further flight due to exceeding the life limit in paragraph (g)(3) of this AD, may only perform a maintenance check or a one-time ferry flight to a location where the affected arm assembly can be removed from service. This ferry flight must be performed with only essential flight crew.

**(j) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Boston ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.



**(k) Related Information**

For more information about this AD, contact Isabel Saltzman, Aerospace Engineer, Boston ACO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7649; email: Isabel.I.saltzman@faa.gov.

**(l) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Sikorsky S-61 Helicopter Alert Service Bulletin 61B40-11, Basic Issue, dated March 2, 2020.

(ii) [Reserved]

(3) For service information identified in this AD, contact your local Sikorsky Field Representative or Sikorsky's Service Engineering Group at Sikorsky Aircraft Corporation, Mailstop K100, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-946-4337 (1-800-Winged-S); email wcs\_cust\_service\_eng.gr-sik@lmco.com. Operators may also log on to the Sikorsky 360 website at <https://www.sikorsky360.com>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on March 1, 2021.

Ross Landes, Deputy Director for Regulatory Operations,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

[FR Doc. 2021-06779 Filed: 4/1/2021 8:45 am; Publication Date: 4/2/2021]